



JMPS-M

External Interfaces



Outline



- What does the term External Interface mean?
- How do External Interfaces relate to External Dependencies?
- Who is working External Interfaces?
- Why are we working External Interfaces?
- How is NAVAIR WD set up to support JMPS-M (Maritime) External Interfaces?



JMPS-M External Interfaces POC



- Ancina Stevens
 - JMPS Maritime External Interfaces Coordinator
 - Phone:
 - 805-989-5269 (lab)
 - 805-989-9663 (desk)
 - Email: ancina.stevens@navy.mil



External Interface Defined



- JMPS External Interface
 - Connection between JMPS framework or JMPS common components and an independent system or piece of data
 - Not part of basic JMPS mission planning
- Major External Interface Categories
 - System
 - Software (requires software, provided or developed, on JMPS)
 - Browser (requires only a Browser on JMPS)
 - Data
 - Flat file, XML file, various media types
 - NIMA products, GPS Almanac, etc.



External Interface Process



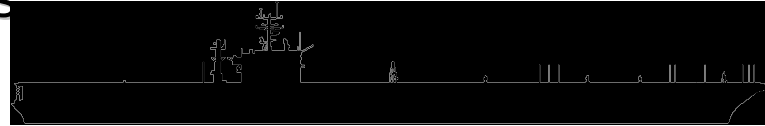
- PMA-281/NAVAIR WD oversight
- Forum for information exchange
- Lay the groundwork for JMPS External Dependency roadmap



External Interface Process



- On initial release, JMPS is focused on CV/CVN interfaces
- Shortly after initial release, JMPS will also be fielded on LHA/LHD ships
- Expansion to interfaces in other JMPS environments (TSCs and surface combatants) dependent on requirements

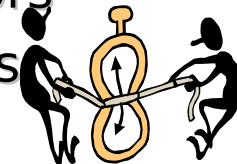




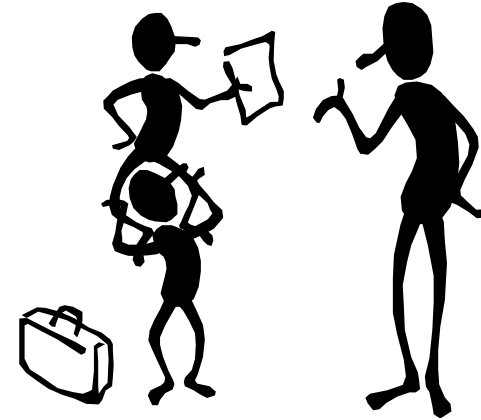
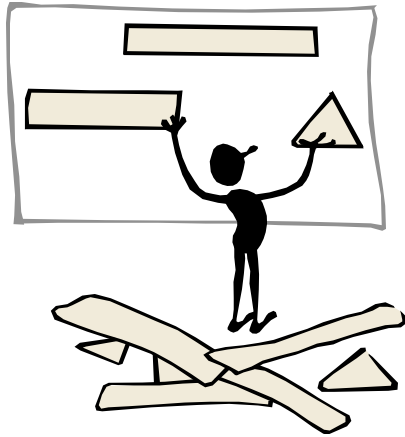
External Interface Challenges



- Many external systems and data
 - Multiple external program offices and contractors
 - Priorities should be driven by user requirements
 - Agreements (some firm...some loose)
- Funding
 - Especially life cycle maintenance support of the software providing the interface (both sides)
- Schedule synchronization
 - Everyone's schedule changes (both sides)
- Technical issues, including inter- and intra-ship/shore connectivity



External Interface 'Change'



Goal: Manage the change properly!





Schedule Synchronization



- Schedule
 - Development
 - Difficult enough
 - Fielding
 - Sometimes impossible due to the ship installation process



Sometimes 'close enough' is the best you can achieve.



JMPS External Interface Tasks



- Requirements
 - Become familiar with ORD and basic user requirements and be on the lookout for ways to satisfy those requirements
- Design/Development
 - Identify POCs for technical information
 - Review system-level documentation
- Test
 - Consultation on all external interface issues
 - Identify external system hardware and software required for testing the interface or facilitate a remote connection
- Risk Mitigation
 - Perform a routine pulse check on existing and potential external interfaces and document risks, problem areas, etc.
- Library
 - Compile an electronic library for all external interfaces and update monthly

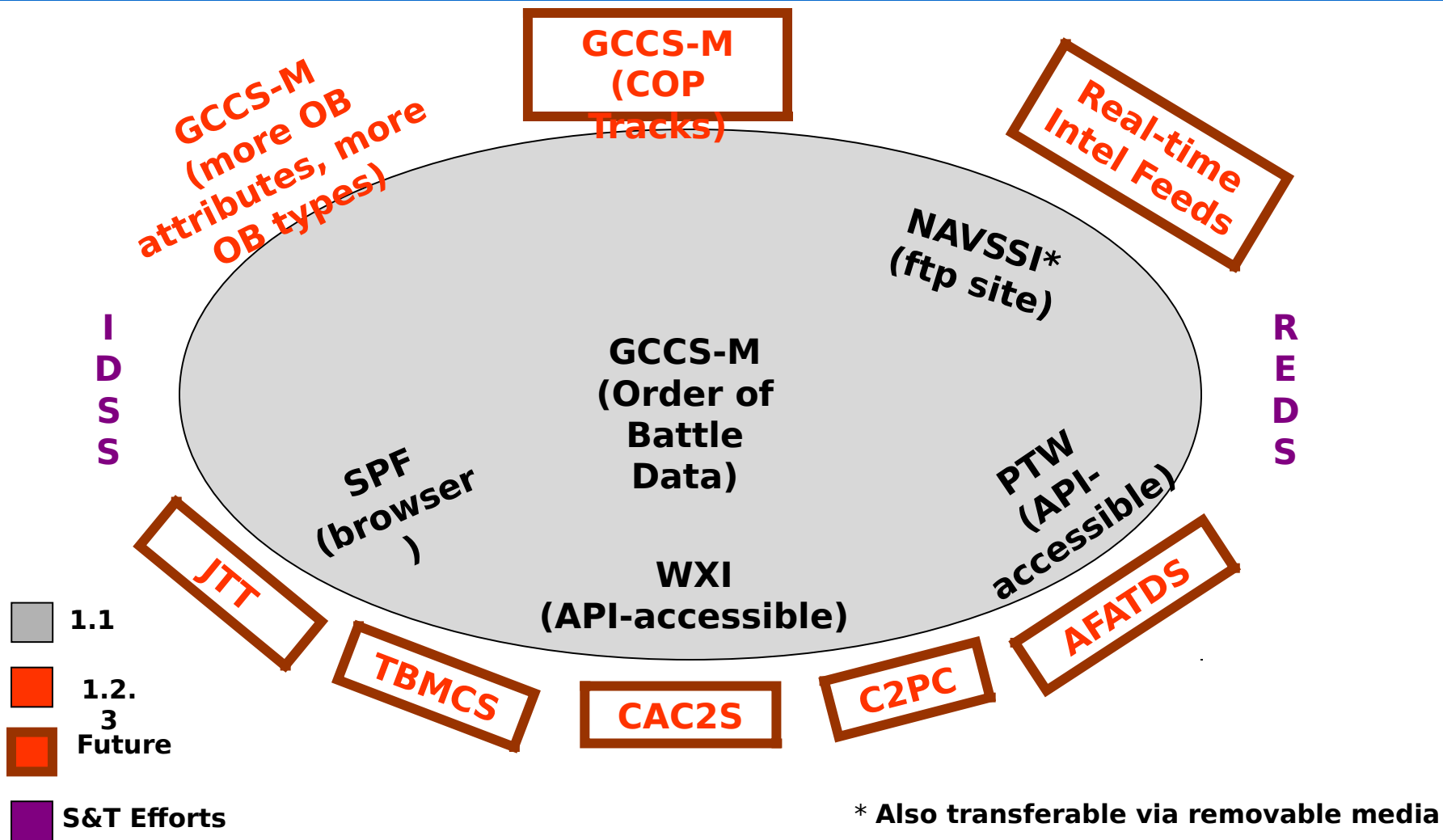


JMPS-M External Interfaces



JMPS-M

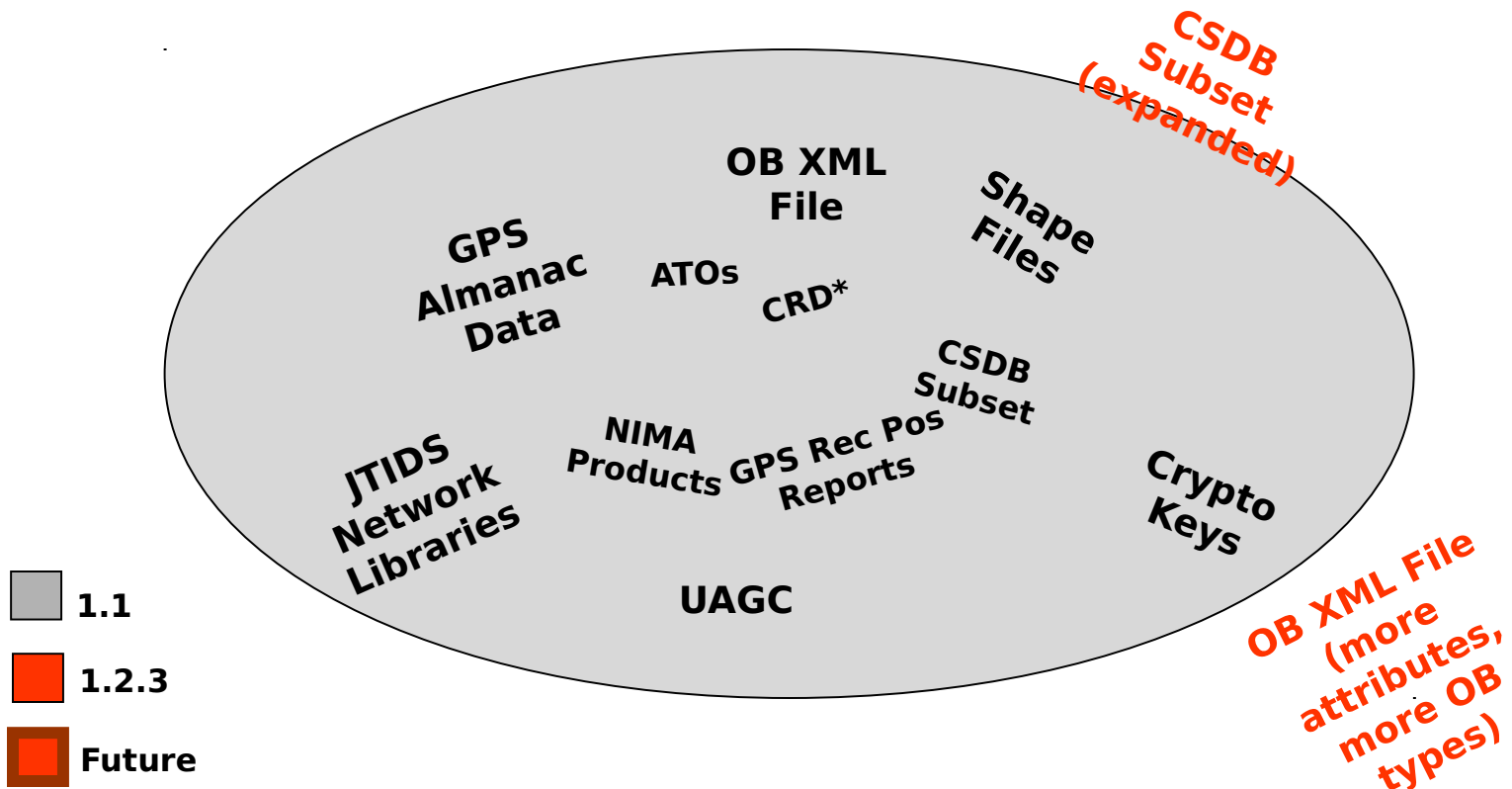
External 'System' Interfaces





JMPS-M

External 'Data' Interfaces



*All are import data interfaces except CRD, which is both import and export.



JMPS External Interface POCs



- Navy
 - Ancina Stevens (Navy Coordinator)
 - Mary Collins (GCCS-M, DAFIF, Intel Data)
 - Matt Becker (NAVSSI, GPS Almanac Data, Crypto Keys)
 - Ann Gross (JNL)
 - Lohn Schneider (ATO, ACO, ATOCONF)
 - Sharon Spielman (ESRI Shapefile)
 - Mike Stine (CRD)
 - Maj Tim 'Pablo' Sheyda (USMC Exp Ops)
 - Requirements still evolving
 - CDR Weston Anderson (METOC/NIMA)
 - NAVAIR WD Labs at Point Mugu and China Lake
 - Rob James (BI SSA Point Mugu)
 - Joe Oreste (IBAR China Lake), Darin Martin (PEC China Lake)



External Interface Summary



SYSTEM/DATA	DESCRIPTION	S/D	J V1	J C1	FUTURE	METHOD	J MPS POC	COMMENTS
AFATDS	Advanced Field Artillery Tactical Data System				X		Maj Pablo Sheyda	Exp Ops
ATO/ACO/ATOCONF	USMTF Air Tasking Order, Air Combat Order, Air Tasking Order Confirmation Message	D	X	X			Matt Jensen	
C2PC	Command and Control PC				X		Maj Pablo Sheyda	Exp Ops - related to GCCS Track Data
CAC2S	Common Aviation Command and Control System				X		Maj Pablo Sheyda	Exp Ops
CRD	Common Route Definition	D	X	X			Mike Stine	
Crypto Keys	GPS Crypto Keys	D		X			Matt Becker	
CSDB Subset	Combat System Data Base	D	X	X		File Import	Ancina Stevens	
GCCS-M	Global Command and Control System-Maritime	S	X	X		J MPS GUI Request	Mary Collins	Currently only MOB (SAM, AAA) and EOB equipment
GPS ALMANAC	Global Positioning System Almanac Data	D	X	X			Matt Becker	Yuma and Navstar formats supported
GPS POSITS	Global Positioning System Position Reports	D	X	X		Data feed on COM port	Matt Becker	Precision Lightweight GPS Receivers (PLGRs) built since 1993 are supported in J MPS. Interface uses the NMEA-0183 industry standard GPS interface (serial port).
J NL	J TIDS Network Library	D		X			Ann Gross	
J TT	Joint Targeting Toolkit	D			X		Mary Collins	
NAVSSI	Navigation Sensor System Interface	S		X		J MPS GUI	Matt Becker	
NIMA MCG&I	National Imagery and Mapping Agency Mapping, Charting, Geodesy and Imagery	D	X	X			CDR Weston Anderson	
OB XML File	Order of Battle eXtensible Markup Language	D	X	X		File Import	Mary Collins	
PTW	Precision Targeting Workstation	S		X		API ONLY	Ancina Stevens	
Real-time Data Feeds	Real-time Data Feeds				X		Mary Collins	PFPS 3.2 capability - Birddog Tools
ESRI SHAPEFILE	Environmental Systems Research Institute SHAPEFILE	D	X	X			Sharon Spielman	
SPF	Strike Planning Folder	S		X		BROWSER	Ancina Stevens	
TBMCS	Theater Battle Management Core System				X		Maj Pablo Sheyda	Exp Ops
TOPSCENE	Tactical Operation SCENE		X	X			Ancina Stevens	Used as a test tool for CRD data exchange (import only)
WXI (METCAST)	METeorologic broadCAST	S		X		API ONLY	Stuart Stratton	
WXI (UAGC)	Upper Air Gridded Climatology			X			Stuart Stratton	



External Systems Non-JMPS POCs



SYSTEM/DATA	DESCRIPTION	PROGRAM POC	TECHNICAL POC	ENGRG DROP
AFATDS	Advanced Field Artillery Tactical Data System		Maj Pablo Sheyda	
ATO/ACO/ATOCONF	USMTF Air Tasking Order, Air Combat Order, Air Tasking Order Confirmation Message	Craig J eske Hill AFB		
C2PC	Command and Control PC		Maj Pablo Sheyda	
CAC2S	Common Aviation Command and Control System		Maj Pablo Sheyda	
CRD	Common Route Definition	Mike Stine (PMA-281) (301) 757-8014	Sam Parsons (Tybrin)	
Crypto Keys	GPS Crypto Keys	Dennis Ritaldato (PMA-281) (301) 757-8015		
CSDB Subset	Combat System Data Base	Raymond Ennis 453 EWS/EWD (210) 977-2745 ramond.ennis@iwcx1.af.mil	J im Sullivan	
GCCS-M	Global Command and Control System-Maritime	Will Landenberg (610)260-4217/(610)662-4390	Donna Snow (NGIT-Phila) (610) 260-4264	4.X Bld 11
GPS ALMANAC	Global Positioning System Almanac Data			
GPS POSITS	Global Positioning System Position Reports			
JNL	JTIDS Network Library			
JTT	Joint Targeting Toolkit			
NAVSSI	Navigation Sensor System Interface	CDR Frank Arata (PMW-156) (619) 524-7766	Samir Shammass SPAWAR samir.shammass@navy.mil Ph: (619)553-2120	Block 4 V4.2.0.35
NIMA MCG&I	National Imagery and Mapping Agency Mapping, Charting, Geodesy and Imagery	CDR Weston Anderson (NAVAIR) (301) 342-0086		
OB XML File	Order of Battle eXtensible Markup Language File			
PTW	Precision Targeting Workstation	Carl Roed (CSCI/PMA 281) (703) 866-4000 croed@csci-va.com	Brad Cordill (BAE) (858) 592-5358	4.1.1.2 (4.1.1 Patch 5)
Real-time Data Feeds	Real-time Data Feeds			
ESRI SHAPEFILE	Environmental Systems Research Institute SHAPEFILE			
SPF	Strike Planning Folder	Matt Worthington (CSCI/PMA 281) (703) 414-3858 worthingtons@saic.com	J erald Barker (BAE) (858) 592-5662	V1.4.5.0 (Build 8)
TBMCS	Theater Battle Management Core System		Elvis Costello	
TOPSCENE	Tactical Operation SCENE	Alan Herod (PMA 205) (301) 757-8136	Steve Perkins (Lockheed) (972) 603-9001	
WXI (METCAST)	METeorologic broadCAST	CDR Weston Anderson (NAVAIR) (301) 342-0086	Brad Cordill (BAE) (858) 592-5358	Version 1.7
WXI (UAGC)	Upper Air Gridded Climatology			



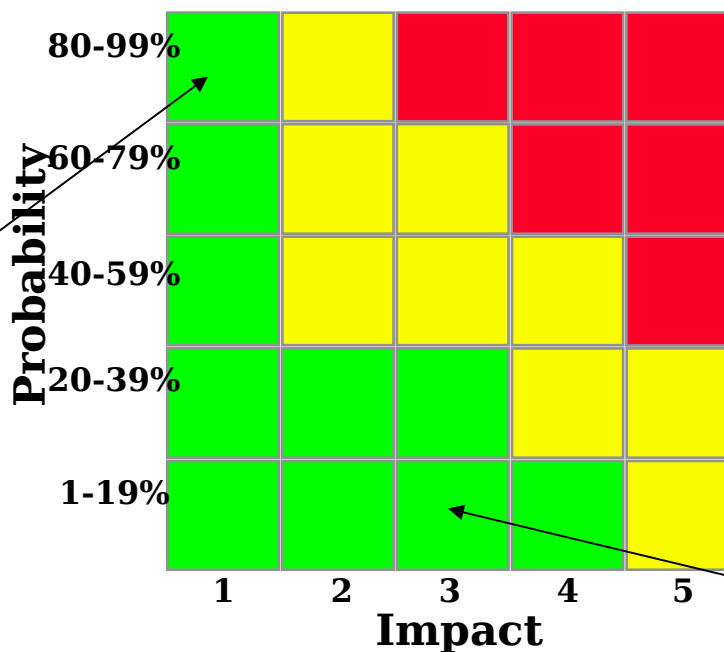
IBAR External Systems



SYSTEM	DESCRIPTION	TYPE (QTY)	SOFTWARE VERSION(S)
C2PC	Command and Control PC	GCCS-M 3.X client	5.4.2.2
GCCS-M	Global Command and Control System-Maritime	GCCS-M 3.X Server GCCS-M 4.X Server	3.1.2.1 Build 11
PTW	Precision Targeting Workstation	PTW Server (4) PTW Stereo Client (3) PTW Mono Client (3)	3.2 4.1 (Patch Set 3) 4.1.1 (Patch Set 5) 4.2 (alpha release)
SPF	Strike Planning Folder	PTW Server 4.1 PTW Server 4.1.1	SPF Build 6 SPF Build 8



JMPS 1.1 External Interface Risks



JMPS 1.1 and GCCS-M
OT and IOC schedules
may not coincide.
(#178)

Parallel development
with External
Interfaces (#054)

- High - Major disruption in the plan. May require Level 1 management or PEO(T) assistance.
- Med- Some disruption in the plan. May require Level 1 assistance.
- Low- Little or no disruption. Can be managed with internal team.



Release Versions (Systems)



- JMPS-M
 - None; still under development
- GCCS-M 4.X
 - None: still under development
- NAVSSI
 - Block 2, 3, and 4 are in the fleet as of Feb 03
 - Carriers are mainly Block 3
 - Big deck amphibs are mainly Block 2
 - Block 4 years out for amphibs
- SPF
 - 1.4.5.0 (Build 8)
- PTW
 - 4.1.1.2 (4.1.1 Patch Set 5)
- METCAST
 - V1.7



Release Versions (Data)



- DAFIF
 - DAFIFT (DAFIF Tab-delimited)
 - Edition 7 in JMPS 1.1
- CSDB
 - Latest quarterly release is July 2004
 - README and JMPSData.exe posted on web site
- CRD
 - JMPS 1.1 has implemented Schema v2.0.0.0
 - 7 February 2003, Version 2.0.0.0, Common Route Definition Interface Control Document (CRD ICD) (prepared by 46TS/OGET), Revision Number 2 CRDICD_2000
 - XSLT translation files provide interoperability with the following versions:
 - version 1.1.2 (The pre-schema, DTD-based specification from PFPS 3.2 and 3.3)
 - version 2.0.0
 - version 2.0.1 (The latest version from PFPS 3.3.1, etc.)
 - JMPS 1.2.1/1.2.2 has implemented Schema v2.0.1
 - 17 October 2003, Version 2.0.1, Common Route Definition Interface Control Document (CRD ICD) (prepared by ESC/ACU OL1)
- JNL
 - Available via <https://nctsi.navy.mil>



DAFIF Issue (Ed 6 Sunset)



- DAFIF Ed 7 is implemented in JMPS 1.1
 - Ed 6 was tentatively scheduled to be eliminated in the Sep 04 through Nov 04 timeframe (Fall 04)
 - Delays in finalization of JMPS 1.1 FW allowed time to upgrade JMPS to handle Ed 7
 - No new elements are processed



GCCS-M



- **Global Command Control System - Maritime (GCCS-M)** is a single, integrated, scaleable Command, Control, Communication, Computer, and Intelligence (C4I) system that receives, displays, correlates, fuses and maintains geo-locational track information on friendly, hostile, and neutral land, sea and air forces and integrates it with available intelligence and environmental information.

GCCS-M/JMPS Interface - allows JMPS users with DBA role to query for current threat Order of Battle data (SAM, AAA, and EOB equipment) from GCCS-M's tactically-relevant MIDB and returns the results in XML. This results can then be saved to the JMPS database and made available to all JMPS users and UPCs.



NAVSSI



- The AN/SSN-6 **Navigation Sensor System Interface (NAVSSI)** system is an integrated shipboard system that automatically accepts, processes, and disseminates navigation and time information from various shipboard navigation sources. The AN/SSN-6 provides a means for mission planners to obtain data verification, digital mapping, and the programming of selected way points. One of the navigation data products includes a GPS almanac file NAVSTAR.alm. This almanac data is used by platforms that require GPS navigation.

NAVSSI/JMPS Interface - allows a JMPS user to download current GPS Almanac data (from NAVSSI) via an ftp site on a LAN/WAN.



PTW



• **Joint Service Imagery Processing System - Navy (JSIPS-N) Precision Targeting Workstation (PTW)** provides imagery, specialized image products, and Mission Target Folders to assist the planner in generating missions.

PTW/JMPS Interface* – allows a JMPS UPC to query for the following products:

- Imagery (NITF 2.0 Expanded Format)
- Automated Target Acquisition (ATA) Products (chipped images)
- Point Position Information Products (PIIP)
- Target Folders with Visual Targeting Aids (VTAs)

The ***PTW/JMPS*** interface also supports ATA product generation requests and the exporting of retrieved products to UPC directories.

There is no user interface in JMPS related to the PTW interface. It can only be used programmatically by a UPC. A test driver, provided by BAE Systems, is used for testing prior to UPCs being available.

* Note: Currently, SLAM-EB and the JSOW/JDAM GUPC are expected to use the PTW interface. Although retrieval of PPIIP is supported in the interface, no UPC has been identified as a user of this product.



SPF



- **Strike Planning Folder (SPF)** functions as a mission/data repository storing routes, threat information, intelligence, weather, Air Tasking Orders (ATO), Rules of Engagement (ROE), and briefing material. Routes are stored in SPF in the Common Route Definition (CRD) format.

SPF/JMPS Interface - allows JMPS users to access, view, and use information held in the SPF repository via a Web Browser. There really is no interface of data to/from SPF except what can be done using normal Windows functionality.

There are plans to eventually incorporate the mission planning functionality of SPF into JMPS.



WEATHER



- **METeorologic broadCAST (METCAST)** is a request-reply and subscription system for distributing weather information extracted from the Tactical Environment Data Server (TEDS) database.

***METCAST/JMPS** Interface - allows a JMPS UPC to query for current and forecasted weather data. There is no user interface in JMPS related to the METCAST interface. It can only be used programmatically by a UPC. A test driver, provided by BAE Systems, is used for testing prior to UPCs being available.*

- **Information Decision Support System (IDSS)** is an S&T project that is being integrated into JMPS.

***IDSS** provides user access to weather data and additional tools using an interface to METCAST.*

- Additional requirements are being worked as part of the **MPEC Weather Common Capability** effort for future JMPS.

The Weather CC is planned to start development in FY04.



Additional 'Systems' for Interoperability



- TOPSCENE – CRD file exchange
- TAMPS – CRD file, SLAM-ER data exchange
- PFPS – CRD file exchange, .thr file exchange



TOPSCENE



- **Tactical Operational Scene (TOPSCENE)** is a 3-dimensional (3-D) scene generator used to simulate the route of flight. The system generates a dynamic 3-D representation based on specific route information, ground elevation data, imagery and threat data.

TOPSCENE can import routes in CRD format and is used for testing JMPS CRD export functionality in JMPS.



JMPS/GCCS-M Interface



JMPS/GCCS-M Interface



- Requirement
 - Electronic interface to GCCS-M for the purpose of obtaining current GCCS-M threat data
 - Electronic Order of Battle
 - Radar equipment
 - Missile Order of Battle
 - Surface-to-Air Missile (SAM) equipment
 - Anti-Aircraft Artillery (AAA) equipment



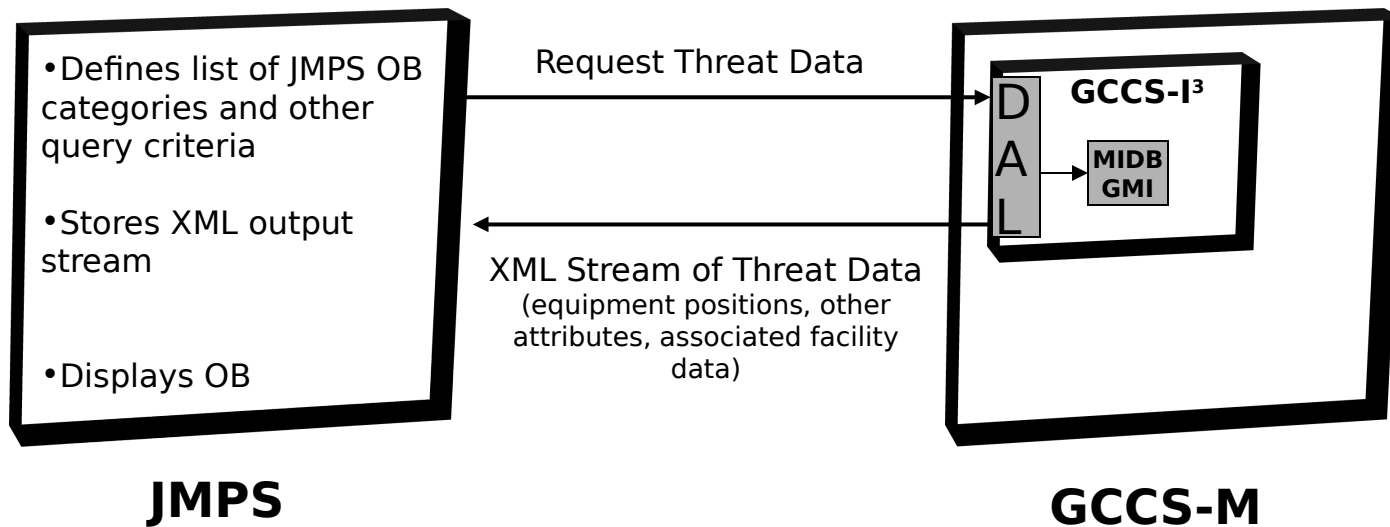
JMPS/GCCS-M Interface



- Interface to GCCS-M from JMPS
 - GCCS-M Data Access Layer XMLSearch API is used by the JMPS software to request threat data across the LAN
 - Not currently available to the mission planner without giving the planner DBA role
 - Ultimate source of the data is the equipment portion of the GCCS-M MIDB data base
 - The BE_NUMBER and CATEGORY elements of any associated facilities are also retrieved
- Processing of the Data on JMPS
 - Upon receipt of the threat data, JMPS saves the threat data set for subsequent use by the mission planner
 - More than a single 'GCCS-M-generated' data set can be saved
- Usage of the Data on JMPS
 - Available to mission planner as a data set that can be used within a planning session

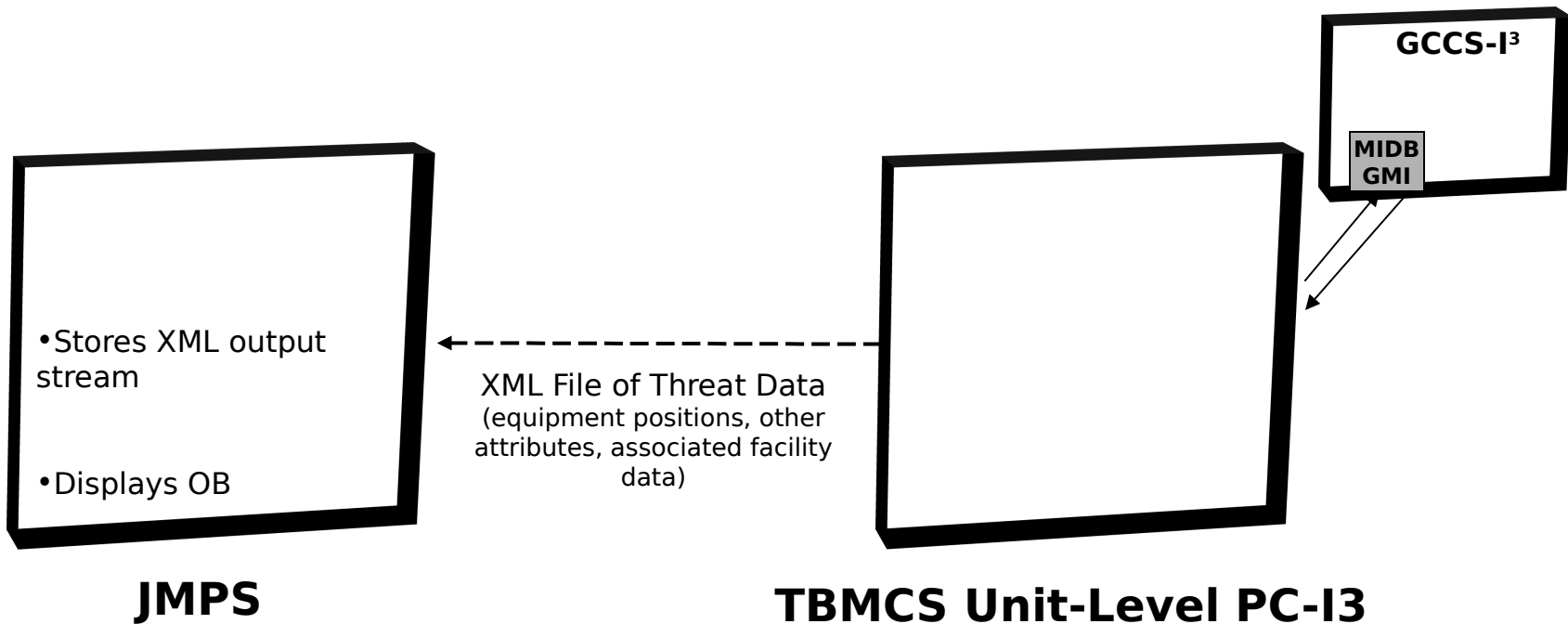


JMPS Implementation (Navy CONOPS)





JMPS Implementation (Air Force CONOPS)





JMPS/GCCS-M Future Plans



- Replace the XMLSearch interface
 - PMW-157 agreement to maintain the XMLSearch interface only as long as JMPS requires it
 - Implement new GCCS-I³ Common Data Exchange (CDE) XML interface
 - Dec 2003 DAL SDK defines this interface
- Be able to use 'products' disseminated by GCCS-I³ client applications
- Expansion to other OB types and data other than MIDB OB



JMPS/GCCS-M Interface Issues



- DAL changes due to security
 - Trusted root authority
 - Real certificate in an operational environment
- Installation of GCCS-M 4.X DAL for operational use
 - Issues being worked as JMPS risk #178
- Availability of GCCS-M 4.X software
 - GCCS-M Software MOA for FY03 in place
 - FY04 MOA in work
 - Jan 02 GCCS-I³ version used for JV1 development and initial testing
 - Version with DAL security changes
 - Build 10 installed at CL and used for JMPS 1.1 FQT
 - Failure on large area queries with Build 10
 - JMPS testing with Build 11 at SSC SD performed successfully
 - Build 11 installed at CL for use in gov testing
 - Used in test events in 2004



JMPS/NAVSSI Interface



Requirement Reference



AVI_GPSALM_AUTO	This interface adds the capability to programmatically retrieve GPS data from NAVSSI, SIPRNET, or the Internet.	JC1
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NAVSSI Interface Capabilities



- NAVSSI can produce almanac data
- NAVSSI is a COE Level 6 unclassified system
 - Supposedly a connection from NAVSSI Block 3 to GENSER Secret GCCS-M 3.X via a serial cable to jots1 for transfer of the navstar.alm file
 - No support for this has been negotiated between GCCS-M and NAVSSI Block 4
 - If JMPS wanted to, we could pursue having NAVSSI push the navstar.alm file to a JMPS ftp directory
 - Probably not practical until NAVSSI is on the ship's GENSER Secret LAN
- NAVSSI will start to be installed on the ship's GENSER Secret LAN in FY05



NAVSSI



- NAVSSI Almanac Data
 - navstar.alm file from NAVSSI Block 3 to GCCS-M
 - Block 3, not in Block 4 yet
 - Mission Planning systems (TAMPS, JMPS) can connect to GCCS-M 3.X jots1 'ftp publish' directory to pull the navstar.alm file
 - TAMPS ship riders use the almanac data file emailed to them or pull almanac data from a web site on SIPRNET
 - There are problems with the almanac data file produced by NAVSSI prior to NAVSSI Block 4 (specifically Ver 4.2)



NAVSSI Program Office



- PMW-156
 - Patrick Truver, PMW-156-3, 619-524-7767, patrick.truver@navy.mil, OT-1 Room 2833
- PMA-156
 - CDR Art Sterret, PMA-156, 619-524-7837, asterret@spawar.navy.mil, OT-1 Room 2821
- SSC SD
 - Sherry Peaslee, SSC SD, 619-553-1525
 - Peter Shaw, SSC SD Code 23201, 619-553-6310
 - Samir Shammas, SSC SD Code 2321, 619-553-2120, samir.shammas@navy.mil, Bayside



NAVSSI Issues



- Nonexistent JMPS/NAVSSI Interface MOA
 - Being worked by Samir Shammas and Matt Becker
 - Draft forwarded to PMA-281 for review
- Sample NAVSSI 4.2 file for testing
 - Requested from Patrick Truver on 21 Feb 03
 - Almanac data file from NAVSSI 4.2.0.35 received from Samir Shammas on 6 Mar 03
 - Matt Becker reported 'NAVSSI 4.2.0.35 Test Successful' for JMPS on 7 Mar 03
- Installation of NAVSSI 4.2.0.35
 - CV/CVN (CVN-76, CVN-69 are first two) is expected in FY04/FY05
 - CVN 72 Block 4 upgrade completed Feb 04
 - LHA/LHD are not expected to get Block 4 upgrade for years
 - Most big deck amphibs are currently Block 2
- Face-to-face meeting with PMW/PMA-156
 - Matt Becker met with PMW/PMA-156 to discuss JMPS/NAVSSI interface Sep 03
 - A number of requirements were identified



JMPS/PTW Interface



JMPS/PTW Interface



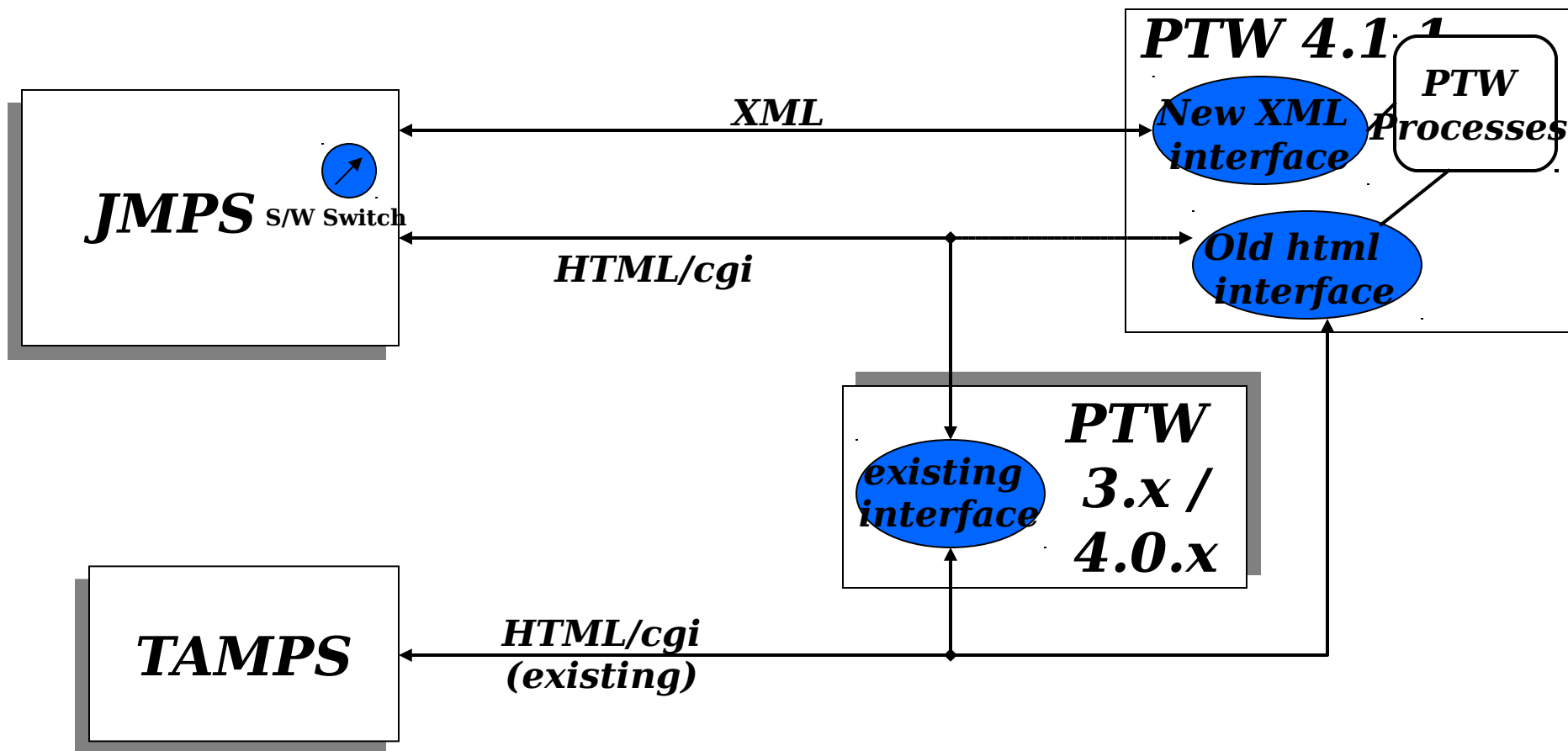
- Requirement

- Query and retrieval of the following PTW imagery and products:
 - Imagery (in NITF 2.0 Expanded Format)
 - Automated Target Acquisition (ATA) Products (chipped images)
 - Point Position Information Products (PPIP)
 - Target Folders with Visual Targeting Aids (VTAs)
- The PTW Interface also supports ATA product generation requests, checking on the status of a job request, and the exporting of retrieved products to UPC directories

*Note: TAM Images are no longer supported by PTW. Although retrieval of PPIP is supported on the JMPS side of the interface, no UPC has been identified as a user of this product.



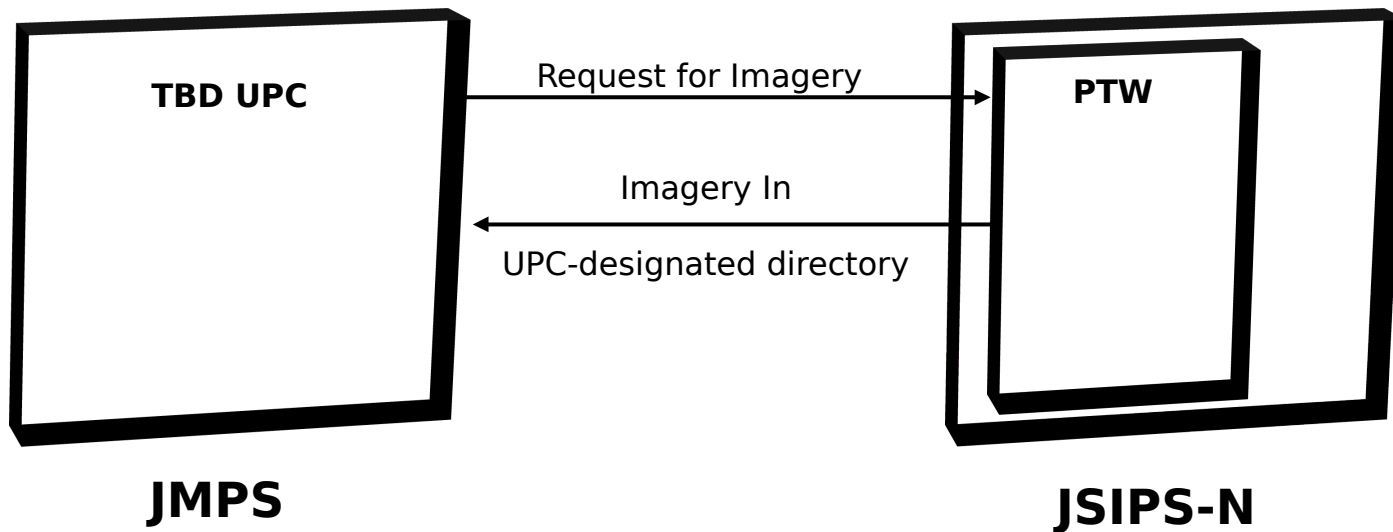
NavMPS/PTW Interfaces



Provides for all possible combinations



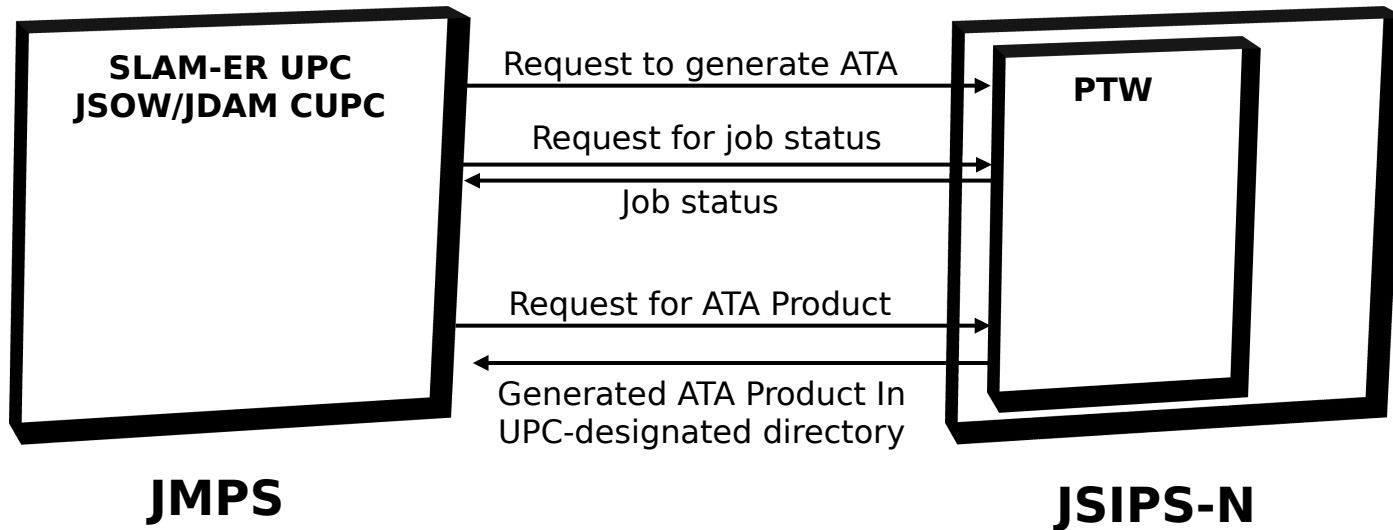
PTW Interface (Imagery)



*There is some question as to the usability of this imagery for situational awareness, given the limitations of viewing the imagery within JMPS.

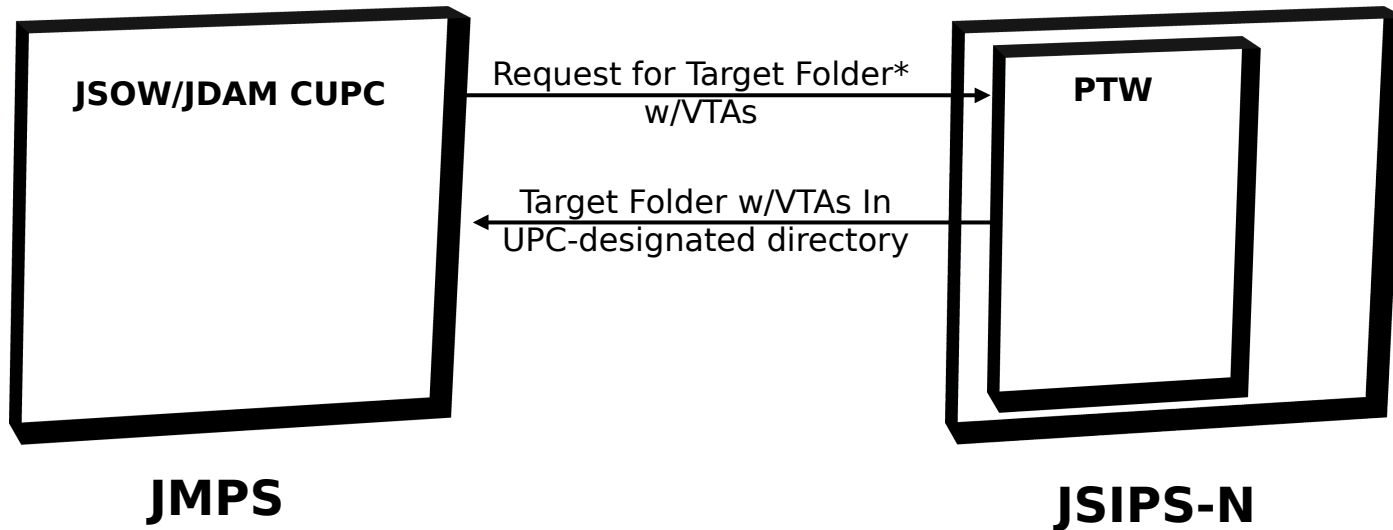


PTW Interface (ATAs)





PTW Interface (Target Folders)



*Target Folder must already exist on PTW.



JMPS/PTW Interface



- PTW 3.X
 - PTW 3.2 and beyond can interface with JMPS via http/CGI
 - Will probably not be in the fleet by the time JMPS is fielded
- PTW 4.1
 - Interfaces with JMPS 1.1
 - http protocol
 - old CGI mode of communication only
 - PTW 4.1 Patch Set 3 Installed at IBAR China Lake
- PTW 4.1.1
 - Interfaces with JMPS 1.1
 - http protocol
 - old CGI mode of communication
 - new XML mode of communication
 - PTW 4.1.1 Patch Set 5 installed at IBAR China Lake
 - Primary version for JMPS focus
- PTW 4.2
 - Alpha release installed at IBAR China Lake



PTW Future Plans



- JMPS interface
 - Old CGI mode of communication phased out as TAMPs dies out
 - At this point, PTW will only support the new XML mode of communication
- Other
 - Joint Targeting Toolkit (JTT) requests accurately mensurated points from PTW
 - PTW 4.1.1 accomplishes this via a file directory
 - PTW 4.2 looking at an XML interface similar to JMPS
 - JAWS
 - Dynamic Target Management Service (DTMS)



JMPS/PTW Interface Issues



- Final PTW 4.1.1 software at IBAR China Lake
- Usability of PTW imagery
 - JMPS NITF Viewer provided by Autometric does not handle the PTW imagery well
 - Only an issue if a UPC decides they want to request/display imagery



JMPS/SPF Interface



SPF Status

- Scheduled releases
 - Sep '04 V2.1 (B9)
- V1.4.5.0 (B8) installed at IBAR China Lake and has been tested



JMPS/WXI (METCAST) Interface



Information Decision Support System (IDSS)



IDSS System Overview



Weather retrieval process initiated

by:

METOC Officer
Mission Planner

Auto Initiate
from
ATO & Ship's
POSIT ATO

Extensible to allow other system initiation
Extensible to allow retrieval from multiple systems
Extensible to allow retrieval from multiple systems

System Features:

- User defined retrieval duration
- User defined update periodicity
- Products accessible by people and systems (XML based)
- Web based (initiation, validation, and use geographically independent)

METOC validation (center of expertise):

Products available as:

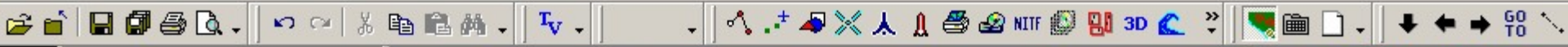
- Editable Tabular forecast models
- Editable graphical model comparison draw files
- Observation reports - graphically & tabular
- Datablade products - graphically & tabular

Mission planning products

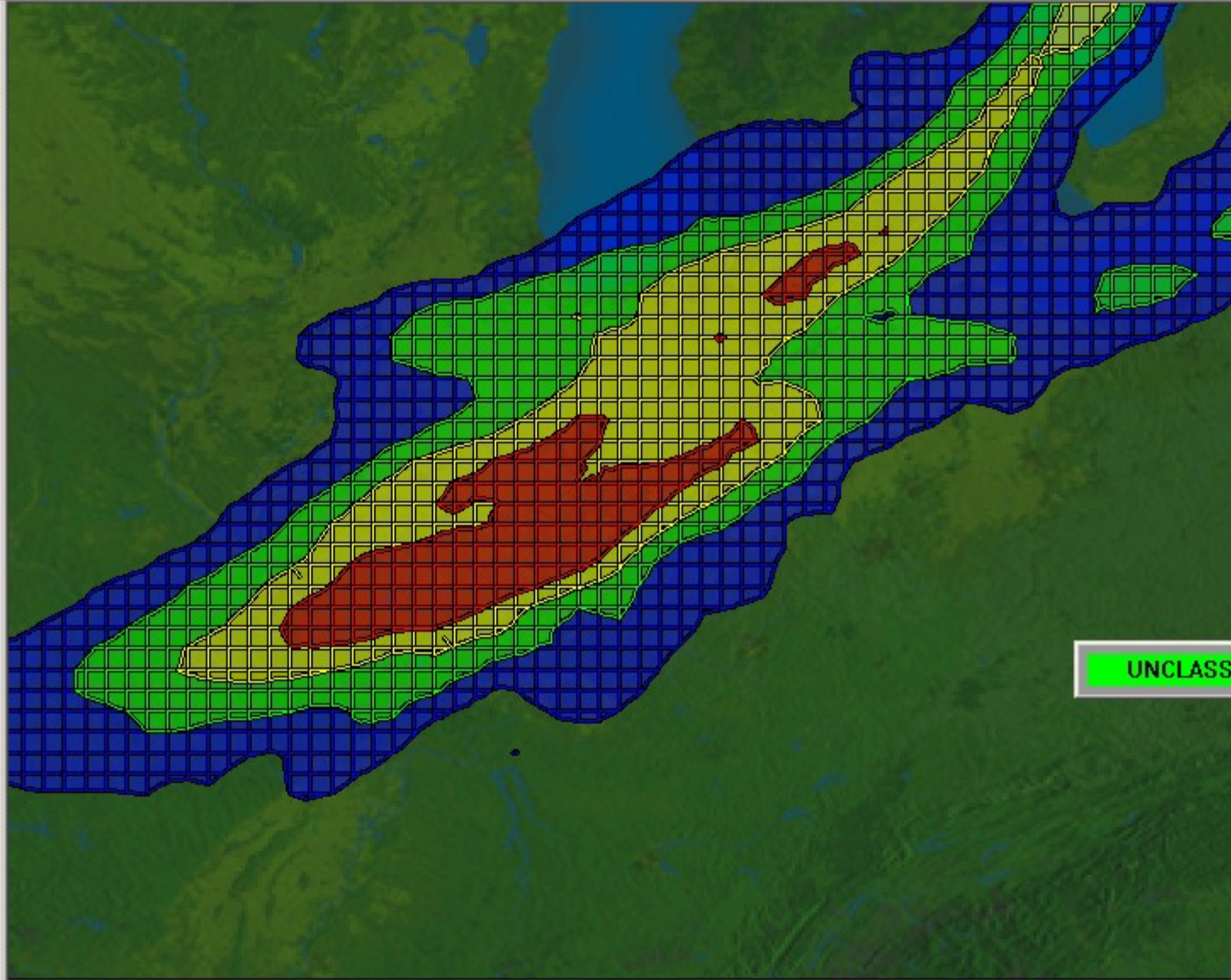
Products available as:

- Georectified graphical draw files
- Merged threshold impact with weather product
- Observation reports
- Auto briefing template generation (Power Point)

- Excel output



- Local Routes
- Manual Chum
- Order of Battle
 - Default Order Of Battl
 - Threat Parametrics
- Point Export
- PTW
- SHP ShapeFile
- VPF
- WaterPages
- WeatherData
- Mission Binders
- Connected Servers
- Open Data Items
 - GraphicsGeneratorRa
- View Folders
 - View 1
 - GraphicsGeneratorRa
- IDSS: 30 Sep 2003 00:0
 - AAA
 - San Diego (33:30N 1
 - Observation Rep
 - Meteorologic
 - Significant M
 - Terminal Aerc
 - Upper Air Rej
 - Observation f
 - SLAP Data
 - View SLAP D
 - METOC Products
 - Temperature
 - Temperature
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 - Temperature
 - Temperature

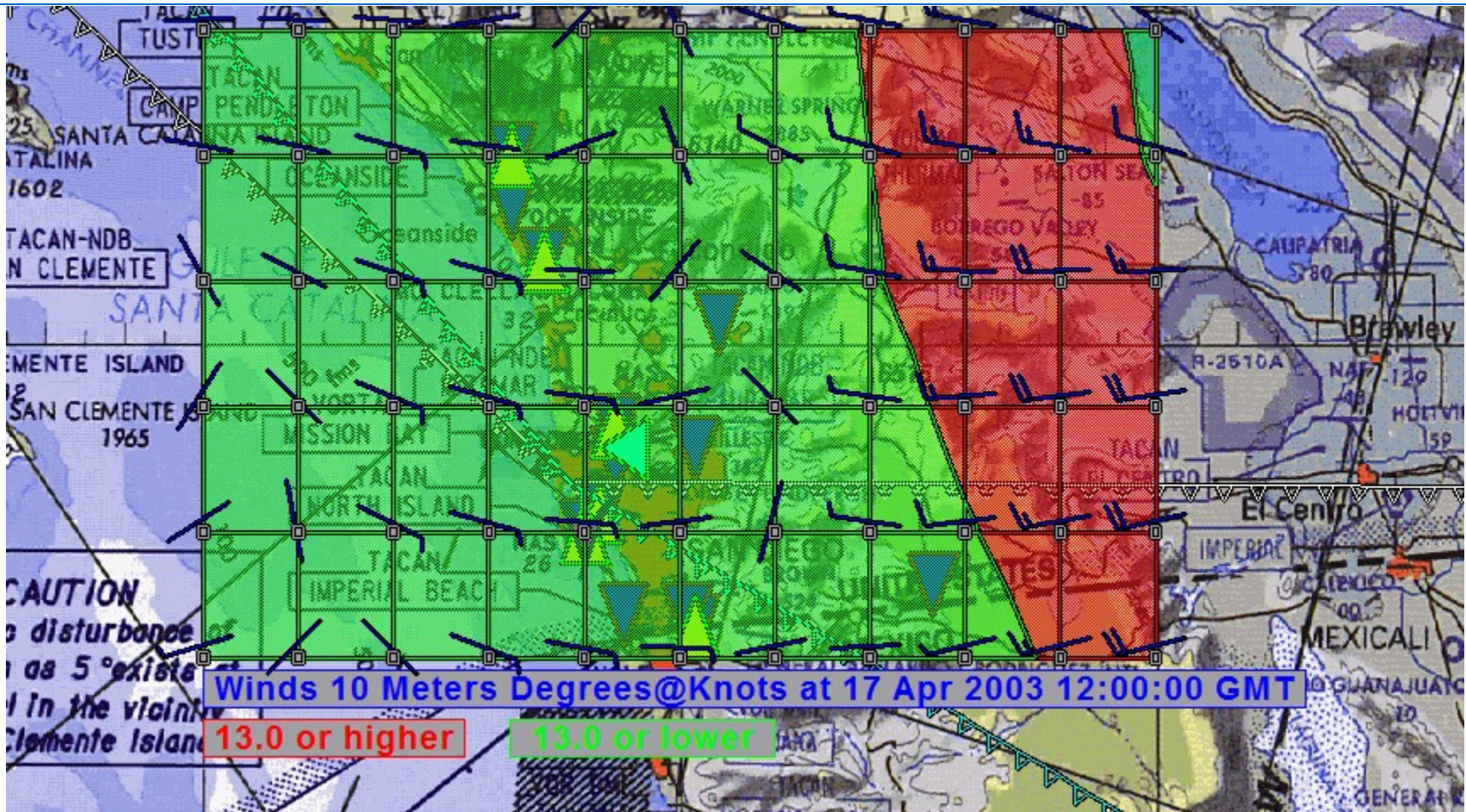


Surface Previous 12 Hour Precipitation at 27 Sep 2003 12:00:00 GMT

0.2 to 0.4 Inches 0.4 to 0.6 Inches 0.6 to 0.8 Inches 0.8 Inches or high

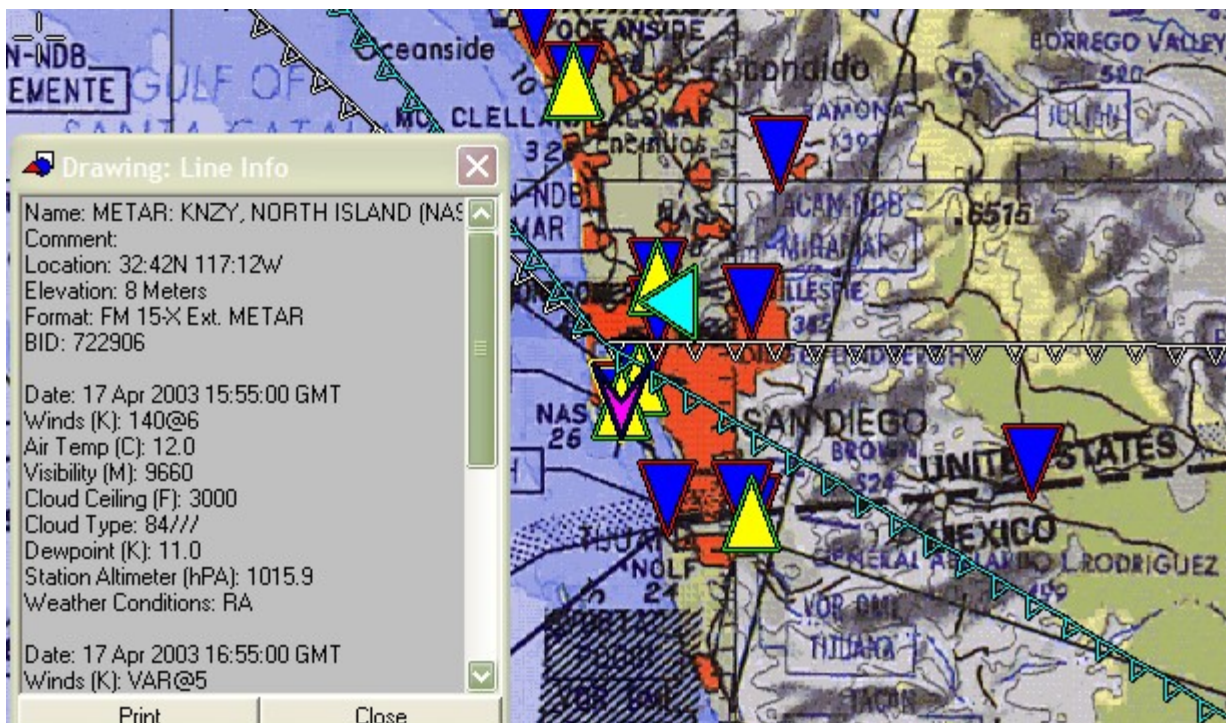


Thresholds Weather to operational parameters - Wind limits for parachutes





Observation Reports





Update to Air Router



JMPS - [View 1 - Route2.jrt*]

File Edit View Tools Test Options Tabular Editor Window Help

Active View: Graphical, Tabular, Document

Available Data:

- Mission Binders
- Connected Servers
- IDSS Forecast: 29 Aug 2003 12:00
 - ATO Package AAA
 - ATO Package AAB
 - ATO Package AAC
 - ATO Package AAD
 - ATO Package AAE
 - ATO Package AAF
 - Mission Segment Takeoff/Lo
 - Mission Segment Tanking (4)
 - Mission Segment Strike (33:4)
 - PGM Wind Threshold
 - Observation Reports
 - SLAP Data
 - METOC Products
 - Temperature Surface
 - Temperature 1975 (10)
 - Temperature 1950 (17)
 - Temperature 1925 (24)
 - Temperature 1900 (32)
 - Temperature 1850 (47)
 - Temperature 1800 (63)
 - Temperature 1750 (80)
 - Temperature 1700 (96)
 - Temperature 1650 (111)
 - Temperature 1600 (133)
 - Temperature 1550 (155)
 - Temperature 1500 (177)
 - Temperature 1450 (200)
 - Temperature 1400 (222)
 - Temperature 1350 (244)
 - Temperature 1300 (266)
 - Surface Pressure
 - Visibility
 - Precipitation Rate
 - 12 Hour Precipitation
 - Winds 10 Meters (33)
 - Winds Isobar 1000 (3)
 - Winds Isobar 975 (10)
 - Winds Isobar 950 (17)
 - Winds Isobar 925 (24)
 - Winds Isobar 900 (32)
 - Winds Isobar 850 (47)
 - Winds Isobar 800 (63)
 - Winds Isobar 750 (80)
 - Winds Isobar 700 (98)

Route2.jrt

Turn Pt	Type	Fix/Point Desc	Latitude Longitude	Elev MV	Aspd Bank	Altitude Wind	Temp FF	MH MC	Leg Time Clock Time	Leg Di Total L
1	ST		N 16 13 15.35 E 067 26 01.76	UNK 1.2W		0M	+79F			
2			N 21 19 21.63 E 065 11 01.76	UNK 0.2W	240T	15000M	+36F			
3			N 24 59 07.67 E 059 33 31.76	UNK 0.9E	240T	21000M	+16F			
4			N 32 38 17.09 E 047 54 42.35	UNK 3.4E	240T	21000M	+18F			
5			N 33 09 40.81 E 044 04 24.71	UNK 3.6E	240T	10000M	+52F			
6			N 15 18 18.84 E 058 57 47.65	UNK 0.6W	240T	0M	+75F			

IDSS Metoc Route Updater

This function will update the winds and temperature of the current route using Metoc data from IDSS. Do you wish to continue?

Yes No

Updates current route with IDSS Metoc data

C-130E

Start | C:\data\global\UPC... | untitled - Paint | JMPS - [View 1 - ...] | 7:10 PM



Summary



Summary



- External Interfaces are Systems or Data that are not packaged as part of JMPS Framework, Common Components, or UPCs
- JMPS-M External Interfaces are managed throughout the life-cycle of a JMPS release
- New External Interfaces are added to JMPS as a part of the JMPS requirements process